



Venkateshwar International School

Sector-18, Dwarka, New Delhi-78

SAT
Main (2018-19)
Class IX

Time Allowed: 1 hr 30mins

Total : M.M-80

English _____ Math _____ Science _____ Total (80) _____

Name of student _____

School Code _____

Class _____

Section-A (English)

M.M-20

Questions 1-5 are based on the following passage. Read the passage and answer the questions that follow:

The happy man is the man who lives objectively, who has free affections and wide interests, who secures his happiness through these interests and affections and through the fact that they in turn make him an object of interest and affection to many others. To be the recipient of affection is a potent cause of happiness, but the man who demands affection is not the man upon whom it is bestowed. The man who receives affection is, speaking broadly, the man who gives it. But it is useless to attempt to give it as a calculation, in the way in which one might lend money at interest, for a calculated affection is not genuine and is not felt to be so by the recipient. What then can a man do who is unhappy because he is encased in self? So long as he continues to think about the causes of his unhappiness, he continues to be self-centered and therefore does not get outside it. It must be by genuine interest, not by simulated interests adopted merely as a medicine. Although this difficulty is real, there is nevertheless much that he can do if he has rightly diagnosed his trouble.

If for example, his trouble is due to a sense of sin, conscious or unconscious, he can first persuade his conscious mind that he has no reason to feel sinful, and then proceed, to plant this rational conviction in his unconscious mind, concerning himself meanwhile with some more or less neutral activity. If he succeeds in dispelling the sense of sin, it is possible that genuine objective interests will arise spontaneously. If his trouble is self-pity, he can deal with it in the same manner after first persuading himself that there is nothing extraordinarily unfortunate in his circumstances. If fear is his trouble, let him practice exercises designed to give courage. Courage has been recognized from time immemorial as an important virtue, and a great part of the training of boys and young men has been devoted to producing a type of character capable of fearlessness in battle. But moral courage and intellectual courage have been much less studied. They also, however, have their technique.

Admit to yourself every day at least one painful truth, you will find it quite useful. Teach yourself to feel that life would still be worth living even if you were not, as of course you are, immeasurably superior to all your friends in virtue and in intelligence. Exercises of this sort prolonged through several years will at last enable doing, free you from the empire of fear over a very large field.

Q1. According to the passage, calculated affection

- (a) appears to be false and fabricated.
- (b) makes the other person love you.
- (c) turns into permanent affection over time
- (d) leads to self-pity.

Q2. Who according to the passage is the happy man?

- (a) Who is encased in self.
- (b) Who has free affection and wide interests
- (c) Who is free from worldly passions.
- (d) Who has externally centred passions.

Q3. Which of the following statements is NOT TRUE in the context of the passage?

- (a) The happy man has wide interests
- (b) Unhappy man is encased in self.
- (c) A man who suffers from the sense of sin must tell himself that he has no reason to be sinful.
- (d) Issue of intellectual courage has been extensively studied.

Q4. Which of the following virtues, according to the passage, has been recognized for long as an important virtue?

- (a) Patriotism
- (b) Sacrifice
- (c) Valour
- (d) None of these

Q5. Which of the following words is SIMILAR in meaning to the word 'bestowed' as used in the passage?

- (a) conferred
- (b) accommodated
- (c) trusted
- (d) directed

In questions 6 and 7, improve/correct the sentence by choosing the most appropriate option to replace the underlined word/phrase.

Q6. All the allegations levelled against him were found to be baseless.

- (a) levelled for
- (b) levelled with
- (c) leveled towards
- (d) no improvement

Q7 After the communal frenzy, slogans now occupy the air, exhorting the people to promote peace, harmony and amity.

- (a) thicken
- (b) fill
- (c) infest
- (d) no improvement

For questions 8 and 9, pick out the most appropriate equivalent (synonym) of the given word.

Q8. Ingenious

- (a) clever
- (b) halfway
- (c) guarded
- (d) hallucinating

Q9. Procrastinate

- (a) halve
- (b) herald
- (c) delay
- (d) hamper

Directions for questions 10-12: There are SIX sentences in the given paragraph. The first and last sentences of the paragraph(in bold) are given in correct order. Rearrange the remaining sentences in the proper sequence to form a meaningful paragraph.

Then answer the questions given below them.

1. A poor farmer presented a fine hare to the king.

- (P) In appreciation the king ordered a stew to be prepared for the feast in honour of the farmer.
- (Q) Being generous by nature, the king offered them a meal and treated them kindly.
- (R) A few days later, a few people came to the court claiming to be neighbours of the farmer.
- (S) Not long afterwards a large number of people appeared at the palace and introduced themselves as neighbours of the farmer.

6. The king welcomed them too and placed before each a bowl of water saying, This is the stew of the hare!"

Q10. Which of the following should be the SECOND sentence after re-arrangement ?

- (a) Q
- (b) R
- (c) P
- (d) S

Q11. Which of the following should be the FOURTH sentence after rearrangement ?

- (a) P
- (b) Q
- (c) R
- (d) S

In questions 12-13, from amongst the options given below each word, choose the appropriate singular form.

Q12. Lice

- (a) Louse (b) Lace (c) Licey (d) None of these

Q13. Dwarves

- (a) Dwarv (b) Dwarve (c) Dwarf (d) None of these

In each of the following questions(14-16) an idiomatic expression / proverb has been given, followed by some alternatives. Choose the one which best expresses the meaning of the given idiom/proverb.

Q14. To read between the lines

- (a) To concentrate (b) To read carefully
(c) To suspect (d) To grasp the hidden meaning

Q15. To flog a dead horse

- (a) To act in a foolish way (b) To waste one's efforts
(c) To revive interest in an old subject (d) To revive old memories

Q16. To pay one back in the same coin

- (a) To provoke a person to quarrel (b) To offer another polite attention
(c) To retaliate (d) To give a word of praise to another

Q17-18) In the following sets of analogies one word is missing. Select that word from the alternatives given below each question.

Q17. Breeze : Cyclone :: Drizzle : ?

- (a) Earthquake (b) Storm (c) Flood (d) Downpour

Q18. Grain: Salt :: Shard : ?

- (a) Grass (b) Glass (c) Pottery (d) Paper

In questions 19 and 20 out of the four alternatives, choose the one which can be substituted for the given words.

Q19. Mania for stealing articles

- (a) Logomania (b) Nymphomania (c) Kleptomania (d) Hypomania

Q20. One who is recovering health after illness

- (a) Chauvinist (b) Connoisseur (c) Convalescent (d) Cynic

16. Find the odd one out : 41, 43, 47, 53, 61, 71, 73, 81

- a) 61
- b) 71
- c) 73
- d) 81

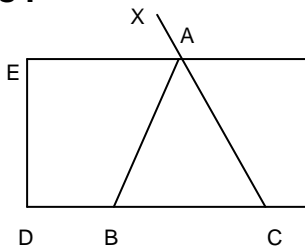
17. In a flight of 600 km, an aircraft was slowed down due to bad weather. Its average speed for the trip was reduced by 200 km/hr and the time of flight increased by 30 minutes. The duration of the flight is:

- a) 1 hour
- b) 2 hours
- c) 3 hours
- d) 4 hours

18. Given two similar triangles one of which has twice the perimeter of the other, by what factor is the area of the larger triangle bigger than the smaller?

- a) 2
- b) 4
- c) $\sqrt{2}$
- d) $2\sqrt{2}$

19. In the following figure, if $AE \parallel CD$, $\angle EAX = 70^\circ$ and $AB = AC$, the measure of $\angle ABD$ is :



- a) 70°
- b) 110°
- c) 120°
- d) 130°

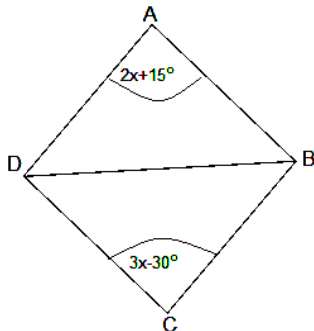
20. Which is greater, $\sqrt[3]{3}$ or $\sqrt[4]{4}$?

- a) $\sqrt[3]{3}$
- b) $\sqrt[4]{4}$
- c) Both are equal
- d) Cannot say

21. The angle between the minute hand and the hour hand of a clock when the time is 4:20, is:

- a) 0°
- b) 10°
- c) 5°
- d) 20°

22. ABCD is a rhombus. $\angle DAB = 2x + 15^\circ$, $\angle DCB = 3x - 30^\circ$, then find $\angle BDC$.



- a) 45°
- b) 35°
- c) 37.5°
- d) 42.5°

23. A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and C in 198 seconds, all starting at the same point. After what time will they again meet at the starting point?
- a) 26 minutes and 18 seconds b) 42 minutes and 36 seconds
c) 45 minutes d) 46 minutes and 12 seconds
24. A number consists of 3 digits whose sum is 10. The middle digit is equal to the sum of the other two and the number will be increased by 99 if its digits are reversed. The number is:
- a) 145 b) 253
c) 370 d) 352
25. How many two-digit numbers satisfy this property: The unit's digit of the square of the two-digit number is 8?
- a) 1 b) 2
c) 3 d) None of these
26. If the mean of x and $\frac{1}{x}$ is M , then the mean of x^3 and $\frac{1}{x^3}$ is :
- a) $4M^3 - 3M$ b) $4M^3 + 3M$
c) $3M^3 - 4M$ d) $3M^3 + 4M$
27. A bag contains 12 balls out of which x are red. If three more red balls are put in the bag the probability of drawing the red balls is twice, then the value of x is:
- a) 2 b) 4
c) 6 d) 5
28. A can run 224 meters in 28 seconds and B in 32 seconds. By what distance does A beat B?
- a) 36 meters b) 24 meters
c) 32 meters d) 28 meters
29. If $(a^2 + b^2)^3 = (a^3 + b^3)^2$ and $ab \neq 0$, then $\left(\frac{a}{b} + \frac{b}{a}\right)^6$ is equal to :
- a) $\frac{a^6 + b^6}{a^3 b^3}$ b) $\frac{64}{729}$
c) 1 d) $\frac{a^6 + a^3 b^3 + b^6}{a^2 b^4 + a^4 b^2}$
30. The diagonal of the floor of a rectangular closet is $7\frac{1}{2}$ feet. The shorter side of the closet is $4\frac{1}{2}$ feet. What is the area of the closet in square feet?
- a) $5\frac{1}{4}$ b) $13\frac{1}{2}$
c) 27 d) 37

SAT
Main Class – IX
Section - C (Science)

Physics

Q1. A body of mass M collides against a wall with velocity V and rebounds with the same speed. Its change of momentum is

- (a) Zero (b) MV
(c) $2MV$ (d) $-MV$

Q2. To study the creatures existing at the bottom of the ocean is very difficult, due to which of the following reason/s

- (a) Most of the creatures will die due to lack of pressure when they are brought to the surface.
(b) Their membranes are so uniquely adapted that they cannot maintain their integrity under anything but extreme pressure.
(c) Only (a)
(d) Both (a) & (b)

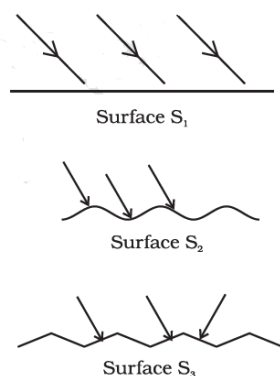
Q3. Ultrasonic sound waves are used in SONAR because

- (a) they have very short wavelength.
(b) they can be heard.
(c) they can travel very fast.
(d) they can be reflected easily.

Q4. A passenger in a moving train tosses a coin which falls behind him. It means that motion of the train is

- (a) accelerated
(b) uniform
(c) retarded
(d) along circular tracks

Q5. Light is falling on surface S_1 , S_2 , S_3 as shown in Fig



Surfaces on which the angle of incidence is equal to the angle of reflection is/are

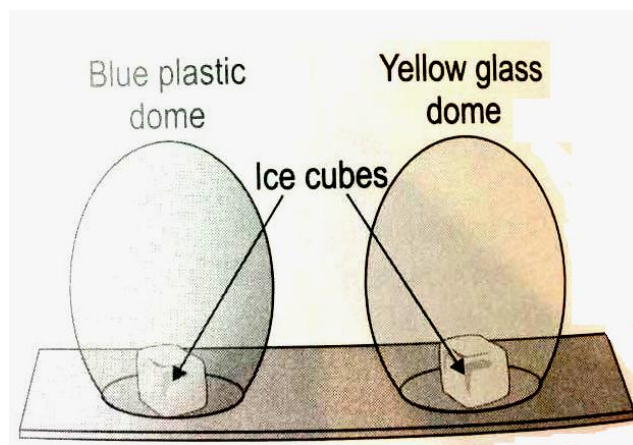
- (a) S_1 only (b) S_1 and S_2 only
(c) S_2 and S_3 (d) all the three surfaces

- Q6. A block of mass 2 kg rest on a plane inclined at an angle of 30° with the horizontal. The coefficient of friction between the block and the surface is 0.7. What will be the frictional force acting on the block? ($\cos 30^\circ = 0.866$)**
- a) 11.9 b) 111.9 N c) 1.19 N d) 1191 N

- Q7. An object is put one by one in three liquids having different densities. The object floats with $1/9$, $2/11$ and $3/7$ parts of their volumes outside the liquid surface in liquids of densities d_1 , d_2 and d_3 respectively. Which of the following statement is correct?**
- (a) $d_1 > d_2 > d_3$ (b) $d_1 > d_2 < d_3$ (c) $d_1 < d_2 > d_3$ (d) $d_1 < d_2 < d_3$

- Q8. The value of quantity G in the law of gravitation**
- (a) depends on mass of earth only.
(b) is independent of mass and radius of the earth.
(c) depends on both mass and radius of earth.
(d) depends on radius of earth only.

- Q9. Sujit did the following experiment. He took two identical cubes of ice. He put one under a blue transparent plastic dome and the other under a yellow transparent glass dome as shown in the figure.**
- He kept the domes beside each other in the sun and observed the ice cubes in both the domes. He found that the ice cube in the blue dome melted faster compared to that in the yellow dome. He concluded that a blue dome lets in more heat, than a yellow dome. Is his conclusion correct?**



- (a) No, it is not. He should have used a blue, a yellow and a colourless dome for comparison.
(b) Yes, it is, but he needs to repeat the experiment at least 3 more times to be sure.
(c) Yes, it is. The ice cube under the blue dome melted faster than the other one.
(d) No, it is not. He should have used two domes made of the same material.
- Q10. The numerical ratio of displacement to distance for a moving object is**
- (a) always less than 1
(b) always equal to 1
(c) equal or less than 1
(d) always more than 1

**Main
Class – IX
Chemistry**

11. CO is

- (a) Acidic Oxide (b) Basic Oxide
(c) Neutral Oxide (d) None of these

12. The major component of CNG is

- (a) Methane (b) Ethane (c) Propane (d) Butane

13. During fractional distillation of petroleum, LPG is collected:

- (a) at 170 C (b) at 250 C (c) above 400 C (d) Below 40 C

14. Silver articles turns black after a period of time due to formation of :

- (a) silver nitrate (b) silver sulphide (c) silver oxide (d) silver chloride

15. Aluminium can be obtained from alumina by

- (a) heating (b) chemical reduction
(c) electric current (d) self reduction

16. During electroplating, the electrolyte is made up of

- (a) metal salt solution of the metal to be plated
(b) solution of metal salt on which plating is to be done
(c) either (a) or (b)
(d) acidulated H₂O

17. In soda- acid fire extinguisher $2\text{NaHCO}_3 + \text{H}_2\text{SO}_4 \longrightarrow$

- (a) $\text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O} + 2\text{CO}_2$ (b) $\text{Na}_2\text{SO}_4 + \text{CO}_2 + \text{O}_2$
(c) $\text{Na}_2\text{SO}_4 + \text{H}_2\text{O} + \text{O}_2$ (d) $\text{Na}_2\text{SO}_4 + \text{H}_2\text{O}_2$

18. Entire positive charge in an atom is concentrated in small area at its centre called nucleus. This was suggested by

- (a) Thomson (b) Rutherford (c) Bohr (d) Dalton

19. Carbon has three isotopes whose mass numbers are

- (a) 11,12,13 (b) 12,13,14 (c) 14,15,16 (d) 6,7,8

20. Which one of the following source of energy is not ultimately derived from sun's energy?

- (a) Geothermal energy (b) Wind energy
(c) Biomass (d) Fossil Fuel

**Main
Class – IX**

BIOLOGY

Q21. Which of these statements about seeds is true?

- a) Seeds need to be kept in sunlight as the sun gives them nutrients for them to sprout.
- b) Seeds have stored food in them and need only air, water and warmth to sprout.
- c) Seeds need soil to sprout as the nutrients for seeds come only from the soil.
- d) Seeds can sprout only if they are given all four-water, soil, sunlight and air.

Q22. Raghu believes that phloem transports food only in the DOWNWARD direction from leaf to root.

Which of the following facts shows that his belief is WRONG?

- a) Plants produce sweet, juicy fruits on the tip of the branches.
- b) Plants carry food through tubes present in their stem and leaves.
- c) Plants store food in modified roots and stems like ginger and potato.
- d) Plants carry water and minerals in the direction opposite to that of food.

Q23. Which one of the following is the true definition of totipotent cell?

- a) An undifferentiated cell capable of developing into an organ.
- b) An undifferentiated cell capable of developing into a system or entire plant.
- c) Cells that lack the capability of differentiating into an organ or system.
- d) An undifferentiated cell capable of developing into a complete embryo.

Q24 . For a few days after delivery, the mammary glands of human females secrete a highly nutritious fluid, which is known as

- a) secretin
- b) colostrum
- c) rennin
- d) serotonin

Q25. Which one among the following chemicals is used for causing defoliation of forest trees?

- a) Phosphos D
- b) 2,4-D
- c) Malic hydrazide
- d) Amo 1618

Q26. Trees of sea shore do not have annual rings because

- a) there is climatic variation
- b) there is no marked climatic variation
- c) soil is sandy
- d) there is enough moisture in the atmosphere

Q27. Angad bought sealed plastic bottles of mineral water and soda water at room temperature

**MINERAL WATER AT ROOM TEMPERATURE
SODA WATER IN PLASTIC BOTTLE**

Which of the following is the CORRECT explanation for what Angad noticed?

- a) Soda water is heavier than mineral water.
- b) The plastic becomes hard when in contact with soda water.
- c) The atmospheric pressure on the soda water bottle is greater than on the mineral water bottle.
- d) The pressure inside the soda water bottle is greater than the pressure inside the mineral water bottle.

Q28. Which of the following processes is /are likely to take place in the leaf of the plant?

P- Oxygen going out

Q-Oxygen taken in

R- Carbon dioxide going out

S – Carbon dioxide taken in

- a) Only P
- b) Only P and S
- c) Only Q and R
- d) Only P,Q,R and S

Q29. Which section of DNA provides information for one protein

- a) Nucleus
- b) Chromosomes
- c) Trait
- d) Gene

Q30. Which of the following is not controlled by genes?

1. Weight of a person

2. Height of a person

- a) only 1
- b) only 2
- c) both 1 and 2
- d) sometimes 1 and sometimes 2